

**Department of Transportation**

**For the Year Ended  
June 30, 2002**

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STATE OF TENNESSEE  
**COMPTROLLER OF THE TREASURY**  
State Capitol  
Nashville, Tennessee 37243-0260  
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John G. Morgan  
Comptroller

May 8, 2003

The Honorable Phil Bredesen, Governor  
and

Members of the General Assembly  
State Capitol  
Nashville, Tennessee 37243  
and

The Honorable Gerald F. Nicely, Commissioner  
Department of Transportation  
Suite 700, James K. Polk Building  
Nashville, Tennessee 37243

Ladies and Gentlemen:

Transmitted herewith is the financial and compliance audit of the Department of Transportation for the year ended June 30, 2002.

The review of management's controls and compliance with policies, procedures, laws, and regulations resulted in certain findings which are detailed in the Objectives, Methodologies, and Conclusions section of this report.

Sincerely,

John G. Morgan  
Comptroller of the Treasury

JGM/mh  
02/101



**STATE OF TENNESSEE  
COMPTROLLER OF THE TREASURY  
DEPARTMENT OF AUDIT  
DIVISION OF STATE AUDIT**

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January 17, 2003

The Honorable John G. Morgan  
Comptroller of the Treasury  
State Capitol  
Nashville, Tennessee 37243

Dear Mr. Morgan:

We have conducted a financial and compliance audit of selected programs and activities of the Department of Transportation for the year ended June 30, 2002.

We conducted our audit in accordance with government auditing standards generally accepted in the United States of America. These standards require that we obtain an understanding of management controls relevant to the audit and that we design the audit to provide reasonable assurance of the Department of Transportation's compliance with the provisions of policies, procedures, laws, and regulations significant to the audit. Management of the Department of Transportation is responsible for establishing and maintaining internal control and for complying with applicable laws and regulations.

Our audit disclosed certain findings which are detailed in the Objectives, Methodologies, and Conclusions section of this report. The department's administration has responded to the audit findings; we have included the responses following each finding. We will follow up the audit to examine the application of the procedures instituted because of the audit findings.

We have reported other less significant matters involving the department's internal control and instances of noncompliance to the Department of Transportation's management in a separate letter.

Sincerely,

Arthur A. Hayes, Jr., CPA,  
Director

AAH/mh

State of Tennessee

# Audit Highlights

Comptroller of the Treasury

Division of State Audit

Financial and Compliance Audit  
**Department of Transportation**  
For the Year Ended June 30, 2002

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## AUDIT SCOPE

We have audited the Department of Transportation for the period July 1, 2001, through June 30, 2002. Our audit scope included those areas material to the *Tennessee Comprehensive Annual Financial Report* for the year ended June 30, 2002, and to the *Tennessee Single Audit Report* for the same period. These areas include the Federal-Aid Highway Administration program. In addition to those areas, our primary focus was on management's controls and compliance with policies, procedures, laws, and regulations in the areas of Information Systems, Bridge Maintenance and Inspection, Equipment, Infrastructure, and Purchases From an Advertising Agency. The audit was conducted in accordance with government auditing standards generally accepted in the United States of America.

## AUDIT FINDINGS

### **Departmental Policies and Procedures to Ensure Compliance With Davis-Bacon Not Always Followed\*\***

The department has established policies and procedures to help ensure compliance with the Davis-Bacon Act. However, department personnel do not always adhere to these policies and procedures as noted in finding 1. Interviews with laborers and mechanics to help ensure contractors' wage compliance were not always conducted (page 8).

### **Controls Over Programmer Access to DOT STARS Not Properly Restricted\***

The Office for Information Resources' Systems Development Support programmers had ALTER access to the Department of Transportation State Transportation Accounting and Reporting System (DOT STARS) data sets. ALTER access grants users the ability to directly change or delete the contents of application data sets as noted in finding 2 (page 14).

### **DOT STARS Disaster Recovery Plan Is Insufficient\*\***

The disaster recovery plan for DOT STARS is insufficient as noted in finding 3. Much of the plan is simply a set of generic guidelines for addressing specific issues relating to disaster recovery. Detailed plan revisions have not been completed or incorporated into a comprehensive plan (page 15).

### **Advertising Services Obtained Without Required Bids**

The department improperly obtained advertising services under the contract between the Department of Economic and Community Development; the Tennessee Film, Entertainment and Music Commission; and Akins and Tombras, Inc. The services provided to the department were not within the scope of the contract as noted in finding 4 (page 21).

\* This finding is repeated from the previous audit.

\*\* This finding is repeated from previous audits.

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"Audit Highlights" is a summary of the audit report. To obtain the complete audit report, which contains all findings, recommendations, and management comments, please contact

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**Audit Report**  
**Department of Transportation**  
**For the Year Ended June 30, 2002**

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# **Department of Transportation For the Year Ended June 30, 2002**

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## **INTRODUCTION**

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### **POST-AUDIT AUTHORITY**

This is the report on the financial and compliance audit of the Department of Transportation. The audit was conducted pursuant to Section 4-3-304, *Tennessee Code Annotated*, which authorizes the Department of Audit to “perform currently a post-audit of all accounts and other financial records of the state government, and of any department, institution, office, or agency thereof in accordance with generally accepted auditing standards and in accordance with such procedures as may be established by the comptroller.”

Section 8-4-109, *Tennessee Code Annotated*, authorizes the Comptroller of the Treasury to audit any books and records of any governmental entity that handles public funds when the Comptroller considers an audit to be necessary or appropriate.

### **BACKGROUND**

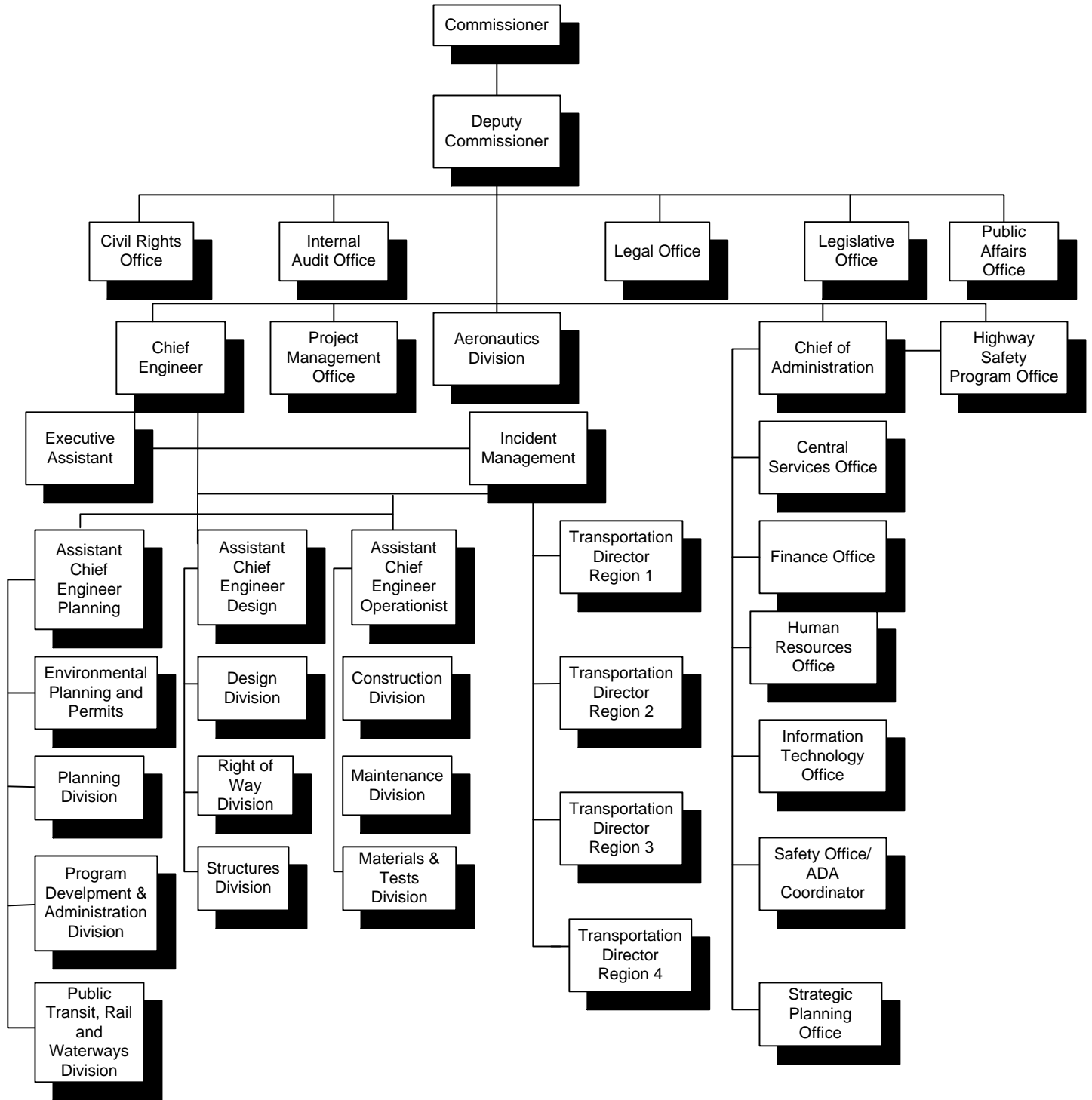
The mission of the Department of Transportation is to plan, implement, maintain, and manage an integrated transportation system for moving people and products, with emphasis on quality, safety, efficiency, and the environment. In order to fulfill this mission, the department has a Bureau of Engineering that administers all phases of transportation programs from planning, constructing, and maintaining of highways to administering field work.

Along with its roadway activities, other duties for the bureau include planning and developing rail transportation, providing aerial photography and mapping services, maintaining and operating state-owned aircraft, issuing permits for overdimensional vehicles, funding and assisting publicly owned airports, and controlling outdoor advertising on state highways. The department also provides maintenance on the department’s general vehicle fleet and technical and funding assistance to over 300 public transportation agencies.

In recent years, one of the primary goals of the department has been to complete the substantial road program passed by the state legislature in 1986. The program is nearly complete.

With 4,600 employees and a budget over one billion dollars, the department is one of the largest agencies in state government. An organization chart of the department is on the following page.

## Department of Transportation Organization Chart



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## AUDIT SCOPE

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We have audited the Department of Transportation for the period July 1, 2001, through June 30, 2002. Our audit scope included those areas material to the *Tennessee Comprehensive Annual Financial Report* for the year ended June 30, 2002, and to the *Tennessee Single Audit Report* for the same period. These areas include the Federal-Aid Highway Administration program. In addition to those areas, our primary focus was on management's controls and compliance with policies, procedures, laws, and regulations in the areas of Information Systems, Bridge Maintenance and Inspection, Equipment, Infrastructure, and Purchases From an Advertising Agency. The audit was conducted in accordance with government auditing standards generally accepted in the United States of America.

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## PRIOR AUDIT FINDINGS

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Section 8-4-109, *Tennessee Code Annotated*, requires that each state department, agency, or institution report to the Comptroller of the Treasury the action taken to implement the recommendations in the prior audit report. The Department of Transportation filed its report with the Department of Audit on January 13, 2003. A follow-up of all prior audit findings was conducted as part of the current audit.

## RESOLVED AUDIT FINDINGS

The current audit disclosed that the Department of Transportation has taken action to correct the previous audit findings concerning maintaining adequate supporting documentation for contractor payments and inspecting bridges in accordance with departmental procedures.

## REPEATED AUDIT FINDINGS

The prior audit report also contained findings concerning the failure to follow departmental policies designed to ensure compliance with the Davis-Bacon Act, the inadequate controls over programmer access to DOT STARS production data sets, and the inadequate documentation of the Department of Transportation State Transportation Accounting and Reporting System disaster recovery plan. These findings have not been resolved and are repeated in the applicable sections of this report.

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## OBJECTIVES, METHODOLOGIES, AND CONCLUSIONS

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### AREAS RELATED TO TENNESSEE'S COMPREHENSIVE ANNUAL FINANCIAL REPORT AND SINGLE AUDIT REPORT

Our audit of the Department of Transportation is an integral part of our annual audit of the *Comprehensive Annual Financial Report (CAFR)*. The objective of the audit of the *CAFR* is to render an opinion on the State of Tennessee's general-purpose financial statements. As part of our audit of the *CAFR*, we are required to gain an understanding of the state's internal control and determine whether the state complied with laws and regulations that have a material effect on the state's general-purpose financial statements.

Our audit of the Department of Transportation is also an integral part of the *Tennessee Single Audit*, which is conducted in accordance with the Single Audit Act, as amended by the Single Audit Act Amendments of 1996. The Single Audit Act, as amended, requires us to determine whether

- the state complied with rules and regulations that may have a material effect on each major federal financial assistance program, and
- the state has internal controls to provide reasonable assurance that it is managing its major federal award programs in compliance with applicable laws and regulations.

We determined that the Federal-Aid Highway Administration program within the Department of Transportation was material to the *CAFR* and to the *Single Audit Report*.

To address the objectives of the audit of the *CAFR* and the *Single Audit Report*, as they pertain to this major federal award program, we interviewed key department employees, reviewed applicable policies and procedures, and tested representative samples of transactions. For further discussion, see the Federal-Aid Highway Administration section.

We have audited the general-purpose financial statements of the State of Tennessee for the year ended June 30, 2002, and have issued our reports thereon dated January 17, 2003. The opinion on the financial statements is unqualified. The *Tennessee Single Audit Report* for the year ended June 30, 2002, includes our reports on the Schedule of Expenditures of Federal Awards and on internal control and compliance with laws and regulations.

The audit of the department revealed the following findings in areas related to the *CAFR* and *Single Audit Report*:

- Employees do not always follow departmental policies and procedures to ensure compliance with the Davis-Bacon Act
- The DOT STARS disaster recovery plan is insufficient

- The Department of Transportation should improve controls over programmer access to DOT STARS production data sets.

In addition to the findings, other minor weaknesses came to our attention which have been reported to management in a separate letter.

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## **FEDERAL-AID HIGHWAY ADMINISTRATION**

To address the objectives of the *CAFR* and *Single Audit*, as they pertain to federal financial assistance programs, our audit focused primarily on the compliance requirements for the Federal-Aid Highway Administration (FHWA) program.

The audit consisted of the following areas:

- General Internal Control
- Activities Allowed or Unallowed and Allowable Costs/Cost Principles
- Davis-Bacon Act
- Procurement and Suspension and Debarment
- Real Property Acquisition and Relocation Assistance
- Federal Reporting
- Special Tests and Provisions: Sampling Program
- Schedule of Expenditures of Federal Awards

The primary audit objectives, methodologies, and our conclusions for each area are stated below. For each area, auditors documented, tested, and assessed management's controls to ensure compliance with applicable laws, regulations, grants, contracts, and state accounting and reporting requirements. To determine the existence and effectiveness of management's controls, auditors administered planning and internal control questionnaires; reviewed policies, procedures, and grant requirements; prepared internal control memos, and performed walk-throughs and tests of controls; and assessed risk.

### **General Internal Control**

Our primary objective for general control was to obtain an understanding of, document, and assess management's general controls within the department. We interviewed key program employees; reviewed organization charts, descriptions of duties and responsibilities for each division, program procedures and guidelines, and the reports issued by the department's internal audit staff; and considered the overall control environment of the FHWA program.

### **Activities Allowed or Unallowed and Allowable Costs/Cost Principles**

The primary objectives of this area were to determine if

- funds were used for allowable purposes;
- federal expenditures were in compliance with grant requirements;
- expenditures involving federal funds have been recorded correctly in the department's accounting records; and
- costs meet the criteria set forth in the "Basic Guidelines" of Circular A-87, *Cost Principles for State, Local and Indian Tribal Governments*, Attachment A, paragraph C.

Supporting documentation for all significant FHWA expenditure items was reviewed and tested to determine if the funds were used for allowable purposes and to determine if costs were in compliance with Circular A-87. The significant items were also tested for compliance with grant requirements and appropriate recording in the department's accounting records.

Our testwork indicated that the department's FHWA funds were used for allowable activities, expenditures were in compliance with grant requirements, expenditures were recorded correctly in the department's accounting records, and costs were in compliance with Circular A-87.

### **Davis-Bacon Act**

The primary objective of this area was to determine if the department ensured that laborers and mechanics on applicable construction contracts were paid the prevailing wage rates as determined by the U.S. Department of Labor.

To monitor compliance with the Davis-Bacon Act, the department has established a system which includes review of contractor and subcontractor payrolls and documented on-site visits and interviews with laborers and mechanics by department personnel.

We tested a sample of closed construction contracts for evidence of departmental monitoring for compliance with the Davis-Bacon Act. We reviewed the labor interviews, contractor and subcontractor payrolls, and prevailing wage rate classifications.

Our testwork revealed that the department did not always conduct the labor interviews in accordance with its policy. This deficiency is disclosed in finding 1.

### **Procurement and Suspension and Debarment**

The primary objective of this area was to determine that the department did not enter into contracts with vendors that have been suspended or debarred from federal contracts.

We compared all vendors from the significant FHWA expenditures to the *List of Parties Excluded From Federal Procurement or Nonprocurement Programs*, issued by the General Services Administration, to determine if the vendors were suspended or debarred.

None of the vendors from the significant FHWA expenditures were listed on the *List of Parties Excluded From Federal Procurement or Nonprocurement Programs* as suspended or debarred.

## **Real Property Acquisition and Relocation Assistance**

The primary objective of this area was to determine compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA) of 1970, as amended. The URA provides for uniform and equitable treatment of persons displaced by federally assisted programs from their homes, businesses, or farms and establishes procedures to determine just compensation to the owner.

We reviewed the departmental policies and procedures developed to ensure compliance with the URA. We tested a sample of FHWA payments made for real property acquisition or relocation assistance for compliance with the URA. We compared the documentation on file supporting the payment to the documentation required for each unique type of payment.

Based upon the testwork performed, it appears that the department's policies and procedures are in compliance with the URA and that the department is complying with its policies and procedures.

## **Federal Reporting**

The primary objective of this area was to determine if the required report for federal awards included all activity of the reporting period, was supported by the applicable accounting records, and was presented in accordance with program requirements.

In the FHWA program, the only required report is the PR-20, *Voucher for Work Under Provisions of the Federal-Aid and Federal Highway Acts, as Amended*. Within the department, this report is referred to as the "current bill." The department generates this report within the department's State Transportation Accounting and Reporting System (DOT STARS) and submits it electronically each week. The report includes detailed financial activity for all authorized FHWA projects.

We reviewed the department's procedure for establishing projects within DOT STARS. We tested FHWA significant items for appropriate recording in the department's accounting records (DOT STARS). We reviewed controls and procedures relating to DOT STARS as described in the Information Systems Review section of this report. We reviewed the process for reconciling DOT STARS with the Department of Finance and Administration's accounting system (STARS) supporting the state's financial statements. We reviewed the process for reconciling DOT STARS with the federal system for authorized projects.

Based on our review and testwork, the required report appears to include all activity of the reporting period, is supported by the department's accounting records, and is presented in accordance with program requirements.

## **Special Tests and Provisions: Sampling Program**

The FHWA program requires a sampling and testing program for projects to ensure that materials and workmanship generally conform to approved plans and specifications. The primary objective of this area was to determine whether the state is following a quality assurance program that meets FHWA requirements.

We reviewed documentation in a sample of closed construction contracts to determine if materials used were sampled and tested for conformity with approved plans and specifications.

Based on our testwork, the department has a sampling and testing program in place to ensure that materials and workmanship generally conform to approved plans and specifications as required by FHWA.

## **Schedule of Expenditures of Federal Awards**

Our objective was to verify that the Schedule of Expenditures of Federal Awards was properly prepared and adequately supported. We verified the grant identification information on the Schedule of Expenditures of Federal Awards prepared by staff in the department's finance office. We reviewed the reconciliations of disbursements with expenditures in the accounting records on a grant-by-grant basis. Based on the testwork performed, we determined that, in all material respects, the Schedule of Expenditures of Federal Awards was properly prepared and adequately supported.

## **Finding, Recommendation, and Management's Comment**

### **1. Employees do not always follow departmental policies and procedures to ensure compliance with the Davis-Bacon Act**

#### **Finding**

The Department of Transportation has established program policies and procedures to comply with the Davis-Bacon Act. However, as noted in 14 of the past 18 years (beginning with the year ending June 30, 1984), department personnel do not always adhere to these policies and procedures to monitor classifications and wage rates as required by the Davis-Bacon Act.

The Davis-Bacon Act requires laborers and mechanics employed by contractors or subcontractors on federal contracts to be paid no less than the prevailing wage rates established for that locale by the U.S. Department of Labor. To monitor compliance with this requirement, the department has established a system whereby designated personnel are supposed to check contractor and subcontractor payrolls during each month of a project. Also, the project engineer or his representative is required to conduct a specific number of interviews with laborers and mechanics to verify the accuracy of payroll records examined. A separate interview form is completed and signed by the laborer or mechanic and the project engineer to document each interview. In response to the prior findings, the department issued Circular Letter 1273-03, which, as amended, requires that the project engineer conduct interviews at two-month intervals



with a minimum of three interviews every two months, or a minimum of two interviews on contracts not anticipated to last two months. These interviews provide evidence of on-site visits to monitor classifications and wage rates. In the previous audit, management anticipated revising Circular Letter 1273-03 after gathering information from other state departments of transportation and the Federal Highway Administration. The Circular Letter had not been revised as of June 30, 2002.

For 7 of 40 closed construction contracts tested (17.5%), the project engineers had not always conducted a sufficient number of interviews. Of the seven, five contracts had no labor interviews conducted. The duration of these projects ranged from 3 months to 17 months. The number of interviews required by the Circular Letter ranged from at least 3 interviews to 24 interviews. Two contracts did not have a sufficient number of interviews conducted. Of the two, one contract was one interview short of the number required by the Circular Letter, and the other contract was nine interviews short.

Without a sufficient number of labor interviews, management cannot have adequate assurance of compliance with the Davis-Bacon Act.

### **Recommendation**

Management should always perform labor interviews as evidence of on-site visits to monitor classifications and wage rates for all projects. Procedures should be followed to ensure that the department complies with the Davis-Bacon Act.

### **Management's Comment**

We concur. The requirement to perform employee interviews continues to be a problem. As contractor employees often work on more than one TDOT project, they continue to get interviewed numerous times during the course of the year and become reluctant to respond to our request. Also, most subcontractors are only on the project for a short time, thus making it difficult to interview them. Based on past instances, nearly 100 percent of the discrepancies found in wage rates have been noted in the payroll review and not during the interview process. We feel that the time involved in the interview process is not justified by the results. However, we do understand that the interview process is required and we are exploring ways to make this more manageable. Discussions with the Federal Highway Administration (FHWA) concerning the interviews revealed the following:

The overall requirements are prompted from the Davis-Bacon Act (requirement for payment of prevailing wages) and the Copeland Act (protecting workers from paying kickbacks to employers for the "privilege" of being employed). These regulations require that the contractor, and subcontractors, furnish weekly certified payroll statements to TDOT that include information on employee classification and wages in order that compliance with Davis-Bacon can be verified. TDOT is required to review the payroll statements and then "spot-check" items such as: classification, hourly rate, overtime hours and rate,

authorized deductions and benefits. The employee interviews are meant to provide cross-reference checks to verify these payroll items.

Davis-Bacon regulations (29CFR Part 5) require the State DOT to assure compliance with the labor standards. The regulations specifically state that, “Such investigations shall include interviews with employees.”

The FHWA Labor Compliance Manual, although dated, is still applicable with regard to procedures. Section 508-5 of the manual states: “Systematic spot interviews are to be conducted by the project engineer with the employees of the contractor or subcontractors on the job to establish that the minimum wage and other labor standards of the contract are being fully complied with and that there is no misclassification of labor or disproportionate employment of apprentices, etc.”

The manual does not prescribe a minimum frequency for performing employee interviews. Section 508-2 of the manual deals with frequency and scope of labor compliance inspections: “Early and complete labor compliance inspections are essential to the development of a sound compliance pattern on all projects. Projects where the contract is of short duration (6 months or less) should be inspected at least once while the work is in progress. In the case of contracts which extend over a longer period of time, the inspections should be made with such frequency as may be necessary to assure compliance.”

As the requirement to conduct interviews is still in effect, we are requesting information from other DOTs concerning this issue. Once gathered we will consult with the FHWA and revise Circular Letter 1273-03.

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## **INFORMATION SYSTEMS**

The department’s State Transportation Accounting and Reporting System (DOT STARS) is an on-line, interactive, table-driven application used by the Department of Transportation to track various events. The system tracks financial transactions, contract status, project status, equipment owned by the department, and road construction and repair supply inventories. DOT STARS interfaces with the State of Tennessee Accounting and Reporting System to transmit financial transactions each night. The department’s Information Technology division supports the system.

Our information systems audit consisted of the following areas:

- Controls, System Documentation, and Policies and Procedures
- Management Involvement and Planning
- Logical Access Security
- Physical Access Security and Contingency Planning

- Operations

## **Controls, System Documentation, and Policies and Procedures**

The primary objectives of this area were to

- gain and document an understanding of the components of the system's internal control,
- review information technology functions for adequate segregation of duties,
- determine whether adequate controls were in place over program changes and whether these procedures reflect current operating conditions,
- determine whether system documentation is available and kept up to date, and
- determine whether relevant policies and procedures have been placed in operation and reflect current operating conditions.

We interviewed key personnel, completed internal control questionnaires, and observed operations to gain an understanding of the system's internal control. The department's organization chart was reviewed to determine whether information technology duties were properly segregated. Program change procedures were discussed with key personnel. Program change documentation and related approvals were reviewed to determine whether the procedures reflected current operating conditions. System documentation was obtained and reviewed to determine whether it is kept up to date. We reviewed policies and procedures to assess adequacy and observed operations to determine if those policies and procedures have been placed in operation and reflect current operating conditions.

Based on our interviews, questionnaires, and observations, it was determined that internal controls related to DOT STARS appeared adequate. The organization chart reflected that the duties of network administration, systems administration, and processing appeared to be properly segregated. Based on our interviews and testwork, program change controls appeared adequate, and they reflected current operating conditions. DOT STARS systems documentation was available for review and appeared adequate and up to date. Relevant policies and procedures appeared adequate and appeared to reflect current operating conditions.

## **Management Involvement and Planning**

The primary objectives of this area were to

- determine if senior management, user management, and internal audit actively participated in information systems planning and systems development; and
- determine whether computer resources were planned and managed effectively.

Key personnel were interviewed regarding senior management, user management, and internal audit's participation in DOT STARS systems planning and development as well as any

relevant system audits affecting the period under audit. While senior management and user management were involved in the day-to-day systems planning and development, internal audit was consulted only on major issues.

The department's Information Technology Three-Year Plan was reviewed to determine whether computer resource needs are planned and managed effectively. Based on our reviews, the Information Technology Three-Year Plan appears to address future processing and hardware needs. It appears that computer resources were planned and managed effectively.

## **Logical Access Security**

The primary objectives of this area were to

- determine whether RACF security controls are utilized to ensure that users terminated from state employment do not have active user identifications,
- determine whether logical access controls (passwords and related controls) are adequate to restrict unauthorized use of the system,
- determine whether the department identifies potential security threats through security violation reports or other adequate procedures, and
- determine whether access to DOT STARS datasets is properly controlled.

Resource Access Control Facility (RACF) is the statewide mainframe security software, used to provide access security at the initial level (or front-end) before the user can access department or agency systems such as DOT STARS. The Department of Finance and Administration's Office of Information Resources is administratively responsible for RACF. However, the Department of Transportation's Information Technology division is responsible for establishing, maintaining, and terminating departmental users.

We used Audit Command Language (ACL) to match the RACF security software report of active users with the state payroll system's terminated users report to verify that users terminated from employment did not have active RACF user identifications. Our testwork revealed that RACF security controls were utilized to ensure that users terminated from state employment do not have active user identifications.

We interviewed key personnel and made attempts to access the system using valid RACF IDs to determine whether logical access controls (passwords and related controls) are adequate to restrict unauthorized use of the system. Based on our interviews and attempts to access the system, it appears that logical access controls are adequate to restrict unauthorized use of the system.

We interviewed key personnel to determine whether potential security threats were identified. Based on our interviews, the department does identify potential security threats.

We obtained a schedule of users with ALTER access to DOT STARS datasets and reviewed it to determine whether access is properly controlled. Based on our review, we

determined that ALTER access to DOT STARS datasets was not properly restricted. This matter has been reported in finding 2.

### **Physical Access Security and Contingency Planning**

The primary objectives of this area were to

- determine whether physical conditions of the computer room and networking facilities are adequate,
- determine whether there is an offsite backup and storage facility,
- determine whether there is an adequate disaster recovery plan, and
- determine whether the disaster recovery procedure was tested and whether management reviews results.

The computer processing and networking centers were inspected to determine whether the facility climate and environment were properly controlled, secured, and maintained. Documentation was obtained and reviewed, and the offsite facility was inspected to determine whether programs and data are stored at an offsite facility. The department's Disaster Recovery Plan was reviewed to determine whether an adequate written disaster recovery plan existed to recover processing capabilities if an accident or malfunction should occur.

Computer facilities had adequate security; climate controls are maintained; and the environment appeared clean, neat, and organized. Based on the review of relevant documentation and site visits conducted by the auditors, it was determined that an offsite storage facility was routinely used. The Disaster Recovery Plan was reviewed with significant deficiencies noted. These weaknesses will be discussed in finding 3.

### **Operations**

The primary objectives of this area were to

- determine whether automated procedures for billing DOT projects to the Federal Highway Administration appear adequate,
- determine whether reconciliation procedures are adequate,
- determine whether error correction procedures are adequate and whether those procedures are being followed,
- determine whether system edits have accepted only allowable information, and
- assess the validity and reliability of computer-generated data.

We interviewed key personnel and observed procedures to determine whether automated procedures for billing DOT projects to the Federal Highway Administration appeared adequate. Based on our interviews, automated procedures for billing DOT projects to the Federal Highway Administration appeared adequate.

We interviewed key personnel to determine whether reconciliation and error correction procedures appeared adequate. Additionally, a reconciliation was reviewed, and the error correction process was observed to determine the accuracy and effectiveness of these procedures.

Based on our interviews, the department does perform reconciliations, and error correction procedures appeared adequate and effective. Additionally, it appeared that the reconciliation and error correction procedures were followed.

We used ACL to develop tests to confirm that DOT STARS system edits accepted only allowable information and computer-generated data is valid and reliable. The ACL testwork revealed that DOT STARS edits operated effectively, accepting only allowable information, and found computer-generated data to be valid and reliable.

## **Finding, Recommendation, and Management's Comment**

### **2. The Department of Transportation should improve control over programmer access to DOT STARS production data sets**

#### **Finding**

Resource Access Control Facility, or RACF, is the security software that protects the state's mainframe computer programs and data files from unauthorized access. As noted in the prior audit, the auditors found that the RACF user group AGRM041, which contained Office for Information Resources' (OIR) Systems Development Support (SDS) programmers as members, had ALTER access to DOTSTARS data sets. ALTER access grants users the ability to directly change or delete the contents of application data sets. Anomalies during processing sometimes cause data elements or control tables to become corrupted and, because of their technical expertise, OIR's SDS programmers may be asked to make corrective changes to the affected databases. However, making such changes is not a normal application programmer duty and must be controlled. The preferred procedure is for the agency's security administrator to set access privileges for the programmers' user group to ALTER only long enough for the corrections to be made and then to promptly reset them back to NONE or READ. Under no circumstances should the programmers' user group access be continuously set to ALTER. Failure to follow this procedure could result in illegal or inappropriate changes to or destruction of state data. Although the department concurred with the prior finding and indicated that closer controls would be established to give programmers access only as needed, the problem has not been resolved.

## **Recommendation**

The department should change the access privileges for RACF user group AGRM041 to READ or NONE. In addition, the department should provide ALTER access to SDS programmers on a needed basis and promptly remove ALTER access after the necessary modifications have been completed.

## **Management's Comment**

We concur. Currently the RACF user group AGRM041 contains Finance and Administration Office for Information Resources (OIR) and Systems Development Support (SDS) programmers as members. This group is responsible for making requested changes to source code for DOT STARS. In addition, this group is responsible for the various activities necessary for each nightly run of the system. The access code for this group is set to "alter," as opposed to the more restrictive "read" or "none." While the setting of "alter" would potentially allow a programmer to make inappropriate changes to DOT STARS data sets, the setting of "read" or "none" interferes with the nightly operation of the system. Changing the setting to "read" or "none" does not allow SDS to copy production data sets to temporary files, which contain 'JJ005', somewhere in the name. They also could not update JJ.JJ005SYS, which contains all of the control cards for production programs and several other problem areas. Appropriate individuals from TDOT Information Technology, OIR, and SDS will meet to determine a mutually acceptable solution.

## **Finding, Recommendation, and Management's Comment**

### **3. DOT STARS disaster recovery plan is insufficient**

#### **Finding**

As noted in the prior three audit reports, the disaster recovery plan for the Department of Transportation (DOT) State Transportation Accounting and Reporting System (STARS) is insufficient. DOT STARS is a mission-critical system that processes virtually all of the department's accounting data. The DOT STARS disaster recovery plan lacks the specific instructions necessary to restore the system in an emergency. Much of the plan is simply a set of generic guidelines. For example, the plan states, "If a (DOT) STARS application receives data from or provides data to another application or department . . . it will be necessary to coordinate with that application or agency in planning for your application's recovery." The plan also states, "If production programs, database definitions, record layouts, etc. have changed since the point of recovery, you must coordinate a plan with DBA/SDS for reapplying these changes." However, there is no documentation indicating that these issues have been considered. Developing specific instructions and information for all critical systems and training employees on the procedures necessary to restore the system are vital to the execution of a sufficient plan.

A comprehensive plan also includes instructions indicating where employees should go to use DOT STARS in the event their offices are unavailable, and describes the method of

communicating with employees during an emergency. Although the current plan indicates that if “DOT headquarters were not available, access to the STARS mainframe application could be made from any PC on the State network with 3270 capability,” the plan neither identifies specific locations with adequate space and equipment that could be used as an alternate location nor informs employees where to report for work.

In addition to the lack of specific documentation, the same employee has been responsible for testing the process each time a mock disaster was performed. Since the availability of any individual employee cannot be guaranteed in an actual disaster, exposing multiple employees to all aspects of the testing process will help to ensure a more efficient recovery.

In the three prior audit reports, management concurred and stated that the department’s Information Technology Division (IT) was completing revisions. The reports also stated that management planned to follow up to ensure completion of the plan. While some changes to the plan have been added, the plan is still not sufficiently comprehensive and lacks many specific instructions.

### **Recommendation**

The department should thoroughly document specific disaster recovery procedures and specific actions to be taken from the declaration of a disaster until the time that normal business operations are resumed to help ensure that business and accounting functions are quickly restored.

The guidelines presented in the current plan for considering specific issues should be addressed and incorporated into the comprehensive plan. The comprehensive plan should be reviewed, updated, and reapproved periodically. The procedures should be prioritized and should list the specific actions to be taken from the declaration of a disaster until the time that normal business operations are resumed.

### **Management’s Comment**

We concur. TDOT STARS is a mission critical system. The current Disaster Recovery Plan attempts to be generic enough to address as many situations as possible yet still be specific enough to allow execution of the plan. While progress has been made in addressing some items, TDOT Information Technology staff and Comptroller staff will meet to address the remaining specific concerns disclosed during the audit.

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## **BRIDGE MAINTENANCE AND INSPECTION**

The bridge maintenance and inspection section of the Department of Transportation routinely performs inspection on all bridges in the state. The objectives of our review of the controls and procedures for the bridge maintenance and inspection section were



- to determine whether policies and procedures regarding bridge maintenance and inspection for structures greater than 20 feet in length were adequate and based on current *National Bridge Inspection Standards* from the *Code of Federal Regulations*,
- to determine whether personnel in charge of bridge inspection teams were properly qualified,
- to determine whether effective monitoring and management of a National Bridge Inspection program was occurring, and
- to follow up on the prior audit finding.

We interviewed key department personnel to gain an understanding of the department's controls, policies, and procedures over bridge maintenance and inspection. We also reviewed supporting documentation for these controls and procedures. In addition, we tested a sample of bridges greater than 20 feet to determine if the individuals in charge of the inspection teams were properly qualified and if the bridges were inspected in accordance with departmental procedures and the National Bridge Inspection program. We determined that management has corrected the prior audit finding.

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## EQUIPMENT

The objectives of our review of equipment controls and procedures at the Department of Transportation were to determine whether

- the property listing represents a complete and valid listing of the capitalizable cost of assets purchased, and assets could be physically observed or confirmed;
- new purchases have been added at the correct prices and were actually received, and purchases for additional units were justified;
- property and equipment were adequately safeguarded;
- use charges to grant programs have been computed on an acceptable basis consistent with prior periods and were reasonable based on expected useful lives and salvage values;
- proper procedures were followed for reporting lost or stolen equipment to the Comptroller's Office and deleting equipment from the property listing;
- documentation existed of surplus property transferred to the Department of General Services, proper amounts of proceeds were received from the sale of surplus property, actual miles of replaced equipment met minimum criteria for replacing mobile equipment or another exceptional condition, and replaced units were removed from the mobile equipment report;
- equipment use has been charged to the correct projects at the correct rates;

- depreciation calculations were accurate, and charges were reasonable based on expected useful lives and salvage values; and
- costs, and if applicable, related depreciation, associated with all sold, abandoned, damaged, or obsolete fixed assets have been removed from the property listing.

We interviewed key department personnel to gain an understanding of procedures for accounting for and safeguarding property and equipment, and reporting lost and stolen property. Samples of mobile equipment and fixed assets were selected for observation or confirmation. The information on the equipment was compared to the department's property listing to determine whether the listing was a complete and valid listing of the capitalizable cost of assets purchased. Descriptions, serial numbers, and locations according to the property listing were confirmed. Existence of the assets was verified through observation or confirmations. A sample of new purchases was selected, and relevant identifying information was compared to the property listing and invoices to determine if new purchases were received, justified, and added at the correct costs. We reviewed the physical conditions surrounding the equipment to determine if the equipment was adequately safeguarded. We reviewed the method used for the usage rate calculations. We reviewed the procedures followed for reporting and deleting lost or stolen equipment. The information from a sample of surplus items was compared to the report of surplus vehicles, bill of sale, and criteria for replacement. We tested a sample of vehicle logs to determine if equipment use was charged to the correct project at the correct rate. A sample of depreciation calculations was tested to determine if they were reasonable and accurate.

We determined that the property listing represents a complete and valid listing of the capitalizable costs of assets purchased, and assets were physically observed or confirmed. We determined that new purchases were received, justified, and added at the correct prices. Equipment appeared to be adequately safeguarded. The use charges to grant programs were computed on an acceptable basis and were reasonable. It appears that the department followed proper procedures in reporting lost or stolen equipment. Documentation of surplus property transferred to the Department of General Services existed, and the proper amounts of proceeds were received from the sale of surplus property. Replaced equipment items met minimum criteria for replacement and were moved to the surplus property report. Equipment use was charged to the correct projects at the correct rates. Depreciation calculations were accurate and reasonable. Minor weaknesses came to our attention, and they have been reported to management in a separate letter.

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## **INFRASTRUCTURE**

The objective of our review of the department's infrastructure was to address the department's controls and procedures over infrastructure in conjunction with the changes in reporting as a result of the implementation of GASB 34.

### **Implementation**

The objectives of this area were to

- determine applicability of GASB 34;
- document the basis for the beginning balance of infrastructure assets;
- document the methodologies used to arrive at the beginning balance for infrastructure assets;
- determine that the accounting method is reasonable for a Special Revenue Fund;
- determine that the methodologies used to value infrastructure are sound and acceptable;
- document the classes, networks, and subsystem of networks of infrastructure assets;
- document the decision to follow the modified approach as opposed to depreciating infrastructure; and
- perform analytical procedures to determine the reasonableness of infrastructure assets balances.

We interviewed key personnel to gain an understanding of the department's procedures for the implementation of GASB 34. GASB Statement 34 was reviewed. It was determined that the State of Tennessee was a phase 1 government and would need to apply the statement for periods beginning after June 15, 2001. Information was reviewed from the years 1914 to 1964 from a book published by the American Association of State Highway Officials as well as the historical information kept by the Department of Transportation for the years subsequent to that report. Once the historical cost was agreed upon between the auditor and DOT, the historical cost was used to determine the prorated historical cost for right-of-way, bridges, and roadways.

The state's transportation system is a network consisting of two subsystems, roadways, and bridges. It was determined that the Department of Transportation, in consultation with the Department of Finance and Administration, has elected to implement the Modified Approach to reporting infrastructure assets. Depreciation will not be calculated on infrastructure assets.

## **Basic Requirements**

The objectives of this area were to

- determine whether the Asset Management System, as placed in operation by TDOT, complies with the requirements of GASB 34;
- document contractual, legal, and budgetary requirements governing infrastructure;
- determine that TDOT has identified all infrastructure assets; and
- confirm the calculation of estimated preservation costs for eligible infrastructure assets.

We determined through interviews of key personnel and review of the systems involved that DOT's use of the Tennessee Road Information Management System (TRIMS), the Maintenance Management System (MMS), and the State Transportation Accounting and

Reporting System (DOT STARS) makes all information required by an Asset Management System available. We determined that contractual, legal, and budgetary requirements have been met by the department and all infrastructure assets have been identified. To determine the percentages of each category to be applied to maintenance and preservation, each project greater than \$10 million was reviewed to determine whether the costs had been capitalized or expensed.

## **Bridges**

The objectives of this area were to

- document bridge condition assessment standards,
- determine the qualification of individuals tasked with overseeing and performing condition assessments, and
- determine that condition assessments are performed to ensure adequate coverage to comply with GASB 34.

The standards followed by the bridge section can be found in the *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges* issued by USDOT - FHWA. We reviewed policies and discussed them with key personnel to determine if employees performing bridge condition assessments appear to be qualified to do so. Through review and discussion with key personnel, we determined that the frequency of assessments and the level of coverage appears adequate to comply with GASB 34.

## **Roadways**

The objectives of this area were to

- document roadway condition assessment standards,
- determine the qualifications of individuals tasked with overseeing and performing roadway condition assessments, and
- determine that roadway condition assessments are performed to ensure adequate coverage to comply with GASB 34.

We interviewed key personnel and reviewed the *Tennessee Department of Transportation Maintenance Rating Program Manual* to determine the adequacy of roadway condition assessment standards. Individuals responsible for supervising and performing road assessments were discussed with key personnel. A review of qualifications was also performed to determine if the assessors were qualified. A review of assessments was performed to determine that assessments are performed to ensure compliance with GASB 34.

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## PURCHASES FROM ADVERTISING AGENCY

Our objective was to determine if purchases made from Akins and Tombras, Inc., complied with state purchasing regulations and the items or services purchased conformed with the agreement with the advertising agency.

We reviewed state purchasing regulations. We interviewed management about the department's use of the state contract with Akins and Tombras, Inc. We obtained a listing of expenditures charged to the contract and the supporting documentation. We reviewed the agreement with the advertising agency and determined if the purchases were in compliance with the terms of the agreement.

Based on our review and testwork, we concluded that the purchases were not in compliance with state purchasing regulations, and the items purchased did not comply with the terms of the agreement. This matter is discussed further in finding 4.

### Finding, Recommendation, and Management's Comment

**4. The department received advertising services without going through the required bid process and inappropriately used a contract initiated by the Department of Economic and Community Development**

#### Finding

The department improperly obtained advertising services under the contract between the Department of Economic and Community Development; the Tennessee Film, Entertainment and Music Commission; and Akins and Tombras, Inc. This action circumvented the required bid process. Furthermore, the services provided to the department were not within the scope of services as described in the contract.

The *Rules of the Department of Finance and Administration*, Chapter 0620-3-3-.03 (1)(a), state, “. . . contracts representing the procurement of services shall be made on a competitive basis. (b) To be competitive, a procurement method must include a consideration and comparison of potential contractors, based upon both cost and quality.” Chapter 0620-3-3-.12 allows the Commissioner of Finance and Administration to make exceptions to the rules. Approved exceptions are to be filed with the Comptroller of the Treasury. The Department of Transportation did not get an exception from the Commissioner of Finance and Administration to forego the competitive procurement process.

In addition, the department received services that were outside the scope of services detailed in the contract previously mentioned. Section A.1 of the contract states that the contractor will provide advertising and marketing “as needed to best promote the business advantages of Tennessee” and that “would best reach prospective industrial and corporate clients.” The contractor will also “make specific promotional and media recommendations on how to promote and advertise Tennessee to prospective clients” and “maintain an expert

knowledge of all media opportunities and options available to best reach Tennessee's potential customer." Section C.9 of the contract states that the services of the Contractor may be extended " . . . to perform work related to Workforce Development Initiative for other departments and agencies of the State of Tennessee."

According to Department of Transportation management, the services provided to the department included advertising the Highway Safety Office's Click-it-or-Ticket and Booze-it-and-Lose-it programs. These services are not related to promoting the business advantages of Tennessee, promoting the State of Tennessee to prospective clients and customers, or the Workforce Development Initiative.

The *Rules of the Department of Finance and Administration*, Chapter 0620-3-3-.05, also state, "The purpose of a written contract is to embody, in writing, the complete agreement between parties. No terms shall be left to an unwritten understanding. A contract shall be explicit and clearly state the rights and duties of each party." However, the Department of Transportation was not a party to this contract, and the scope of services mentioned in the contract did not include the advertising services that were provided.

As of December 2002, the department had expended over \$3 million for the advertising services received under this contract since October 2000.

The purpose of the state's purchasing rules is to ensure that the state's agencies and departments enter into arrangements that are in the best interest of the state. Not having all services documented in the contract could lead to confusion as to the scope of services, payment terms, and other conditions. Not obtaining bids could result in the state paying more for the desired services than is necessary.

### **Recommendation**

The Commissioner should not bypass bidding procedures by obtaining services through other state contracts, unless those contracts conform exactly to the needs of the department. Initiation of new contracts for services should follow the state's competitive bid requirements. All agreements with contractors should be sufficiently detailed to outline each party's responsibilities.

### **Management's Comment**

We concur in part. The department did obtain advertising services under a contract between the Department of Economic and Community Development (ECD); the Tennessee Film, Entertainment and Music Commission; and Akins and Tombras, Inc. However, written permission was requested and received from the commissioner of Finance and Administration (F&A) and the Comptroller of the Treasury for TDOT to utilize this contract. On each occasion, the request described the various safety programs for which the funds were requested. Considering the above, we feel that the use of this contract was not inappropriate.

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## OBSERVATIONS AND COMMENTS

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### **TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

*Tennessee Code Annotated*, Section 4-21-901, requires each state governmental entity subject to the requirements of Title VI of the Civil Rights Act of 1964 to submit an annual Title VI compliance report and implementation plan to the Department of Audit by June 30, 1994, and each June 30 thereafter. The Department of Transportation filed its compliance report and implementation plan on June 28, 2002.

Title VI of the Civil Rights Act of 1964 is a federal law. The act requires all state agencies receiving federal money to develop and implement plans to ensure that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal funds. The Human Rights Commission is the coordinating state agency for the monitoring and enforcement of Title VI. A summary of the dates state agencies filed their annual Title VI compliance and implementation plans is presented in the special report *Submission of Title VI Implementation Plans*, issued annually by the Comptroller of the Treasury.

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## APPENDIX

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### ALLOTMENT CODES

Department of Transportation allotment codes:

401	Transportation Headquarters
402	Bureau of Administration
403	Planning and Programming
411	Bureau of Operations
412	Engineering Administration
414	Claims for Injury and Damage
416	Area Mass Transit
417	Waterways and Rail Construction
430	Equipment Administration
440	Planning and Research
451	Maintenance and Marking
453	Betterments
455	State Aid
461	Rural Roads Construction
462	Federal Secondary Construction
470	State Industrial Access
471	State Construction
472	Interstate Construction
473	Primary Construction
475	Forest Highway Construction
476	Appalachia Construction
478	Local Interstate Connectors
479	State Secondary Construction
480	State Highway Construction
481	Capital Improvements
482	Other Construction
484	Great River Road
485	Highway Beautification
487	Metropolitan-Urban
488	Bridge Replacement
489	Highway Safety Construction
491	Aeronautics Commission
494	Transportation Equity Fund